

## **REMARKS**

Favorable reconsideration and allowance of the subject application are respectfully requested. Claims 1-3, 5, 7, 10, 13-14, and 16-33 are pending in the present application, with claims 1, 13, 16, and 33 being independent.

### ***Claim Rejections under 35 U.S.C. §103***

The Examiner finally rejected claims 1-2, 7, 16-17, 20-22, 24, 25, 30, and 32-33 under 35 U.S.C. §102(e) as being anticipated by Schafer (US Patent No. 6,404,755); Claims 18-19 are rejected under 35 U.S.C. §103(a) as being unpatentable over Schafer in view of Mousley (US Application No. 2002/0172160); Claim 10 is rejected under 35 U.S.C. §103(a) as being unpatentable over Schafer in view of Fujiwara (US Patent No. 4,794,649); Claim 14 is rejected under 35 U.S.C. §103(a) as being unpatentable over Schafer and Fujiwara, and further in view of Ricci et al (US Patent No. 6,463,039); Claim 31 is rejected under 35 U.S.C. §103(a) as being unpatentable over Schafer in view of Ricci et al; and Claim 26 is rejected under 35 U.S.C. §103(a) as being unpatentable over Schafer in view of Landolsi (US Patent No. 6,570,842).

Each of the above rejections rely on Schafer for showing the features of Independent claims 1, 13, 16 and 33. The rejections are traversed because specific features defined in each of independent claims 1, 13, 16 and 33 are not shown or disclosed by Schafer.

As discussed in the Amendment filed June 5, 2008, the purpose of the present invention is to provide improved communication between a first and second transceiver by transmitting various different information symbols on a single wave carrier by using

different modulation indices for the various different individual information symbols. In this way the carrier wave is modulated so that at least one of the physical parameters of the carrier is changed in the first transceiver. Therefore with different information symbols the types of information only need to be partially coded in the form of data words so that the data rate can be substantially increased. As a result more than coded data words can be sent such as control signals on the carrier wave.

The result of this method can be, as an example the improved transponder for operation with a base station in an automobile in which the transponder does not have a power source (passive) but must glean power inductively from the base station. These systems must function rapidly for a consumer to have any confidence it is working so that time lost in converting data via a protocol is critical and the necessary power to generate clocking is limited because the power be taken from the energy from the base station. This further subtraction of energy considerable shortens the effective distance between the base unit and the transponder. The present invention solves this problem by increasing the data rate as mentioned above and by replacing the need for clock logic in the passive transponder. This clock can be one of the claimed different information symbols. The second transceiver can be controlled by the first transceiver by synchronization and the data rate can be variably set without coding with data words because of the use of modulation indices.

In response to Applicants arguments filed in the June 5, 2008 Amendment, the Examiner has indicated that he disagrees because "Schafer teaches that a known/fixed modulation index (such as 4-QAM) is assigned to the control information and a variable modulation index (such as 16-QAM, 64-QAM, and so forth that is usually higher than

the known modulation index assigned to the control information) to the payload information that enables and the second transceiver obtains/extracts (or demodulate) the conveyed information (whether it is control information or payload information)" for this interpretation, the Examiner relies on col. 12, lines 50-67 and col. 13, lines 1-5 for Schafer.

Applicants traverse this interpretation and therefore the rejection because columns 12 and 13 of Schafer fails to address the limitations of each of independent claims 1, 13, 16 and 33 concerning "a different modulation index is assigned to each one of the different information symbols, each of the information symbols conveying different type data, and the modulation indices identifying a type of the conveyed data based on an amplitude of the amplitude modulation index".

The determining factor in Schafer with regard to information density is the condition under which a receiver and transmitter are able to communicate. In other words when there is no interference to microwave communication, the rate is increased and when deterioration exists(increased interference) the information rate is decreased. The disclosure of column 12 and 13 is addressed to the capability of the system to respond to the necessary change in information density required by the amount of interference. Thus when the information density is increased or decreased in response to interference changes such as rain etc, the system of Schafer has the disclosed capability to handle the speed change. There are no "different information symbols, each of the information symbols conveying different type data" as required by specifically by claim 1 and similarly by claims 13, 16 and 33.

A QAM conveys data by changing amplitude of two carrier waves out of phase by 90 degrees. Going from a 4-QAM to an 8-QAM increases the bit rate because the number of bits per grid is increased. but at a cost of less reliability if energy expenditure is to remain the same. Schafer has the capability to transmit at different order QAM's to increase or decrease rate but these are not symbols as claimed.

Still further, even if purposes of argument, the different QAM rates are interpreted as "symbols", there certainly is no disclosure that the modulation indices identify "a type of the conveyed data based on an amplitude of the amplitude modulation index". As indicated above QAM has the data itself identified by the amplitude but not the type of data and certainly not based on a plurality of different symbols which convey the information with regard to the different type of data. If Schafer is interpreted as having different speeds indicated by symbols, then certainly the different speeds are not identified by amplitude. Thus claim 1 defines over Schafer and the removal of the rejection is requested.

Claim 13 recites different modulation indexes for the different information symbols and further that at least one of the symbols for a control signal is "smaller than the modulation index of a data signal formed by others of said different information symbols." Thus the amplitude factor in claim 13 is not present in Schafer for purposes of determining speed.

Claims 16 and 33 recite, similar to claim 1, that the information symbols "identify said information items based on an amplitude of each of said modulation indices". thus these independent claims also are submitted as defining over Schafer.

It is again submitted that Schafer has a different concept and a different implementation and that because of the different concept, the differences between the claimed invention and Schafer are not obvious whether Schafer is considered alone or with any of Fujiwara, Ricci et al, Mousley or Landolsi. This is submitted as true even if, assuming *arguendo*, the statement for the showing of these references is accepted as correct. Each dependent claim depends from one of independent claims 1, 13, 16 or 33 and are thus also submitted as defining over the art of record.

Therefore in view of the distinguishing features between the claimed invention, as defined in independent claims 1, 13, 16, and 33, and the references, which features are not shown or disclosed or made obvious by any combination of references obvious to one skilled in the art, Applicant respectfully requests the withdrawal of the rejection and the passing of this case to issue.

### **CONCLUSION**

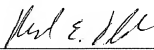
Applicants have made a diligent effort to place the claims in condition for allowance. However, should there remain unresolved issues that require adverse action, it is respectfully requested that the Examiner telephone Martin R. Geissler, Applicants' Attorney at 1.703.621.7140 so that such issues may be resolved as expeditiously as possible.

For these reasons, and in view of the above amendments, this application is now considered to be in condition for allowance and such action is earnestly solicited.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 50-3828 for any additional fees required under 37 C.F.R. §§ 1.16 or 1.17; particularly, extension of time fees.

**Date: October 15, 2008**

Respectfully Submitted,

  
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for Martin R. Geissler  
Attorney/Agent for Applicant  
Reg. No. 51011

Muncy, Geissler, Olds & Lowe, PLLC  
PO BOX 1364  
Fairfax, VA 22038-1364  
Tel. 1.703.621.7140